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I, JANENE PEISKER, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2003906832 for a patent by PETER QUIRK as filed on 09 December 2003.

WITNESS my hand this  
Twenty-fourth day of December 2004

A handwritten signature in dark ink, appearing to read 'J. K. + U'.

JANENE PEISKER  
TEAM LEADER EXAMINATION  
SUPPORT AND SALES



AUSTRALIA  
Patents Act 1990

PROVISIONAL SPECIFICATION

Applicant:

PETER QUIRK

Invention Title:

FLASHING

The invention is described in the following statement:

## FLASHING

### FIELD OF THE INVENTION

The present invention relates to flashing which finds particular use in the construction industry, primarily for covering members such as joists, beams, bearers, wall plates, rafters and the like.

### BACKGROUND TO THE INVENTION

Flashing is used in the construction industry to provide a barrier against the passage of moisture into and beyond joists, rafters, beams, bearers, wall plates and the like, especially where such members are formed from materials susceptible to moisture such as timber.

Known flashing includes metal strips or metal-containing sheets which are cut and positioned in relation to the member. It is also known to use adhesive tape in the place of metal flashing.

### SUMMARY OF THE INVENTION

In a first aspect the present invention provides flashing comprising an elongate body for overlying a member, and legs extending for at least part of the body length and protruding from either side of the body in a manner such that the legs are biased towards and can be positioned at a respective member side.

Thus, flashing in accordance with the invention can be provided with an in-built bias which enables it to grip onto the member on which it is placed.

In a second aspect the present invention provides elastomeric flashing comprising an elongate body for overlying a member.

Advantageously, by providing an elastomeric flashing, the flashing can provide for noise reduction (especially

when used on metal members such as metal joists) and can provide for impact absorption between adjacent members (ie. between which the flashing is located). In addition, for any nails or screws driven through the flashing, the elastomeric properties enable the flashing to grip around the nails or screws preventing water, moisture, liquid and dust movement therepast.

The term "elastomeric" is intended to include a broad range of polymers having resiliency and/or shape memory, and includes natural and synthetic rubbers such as EPDM rubber, polymeric resins having flexibility and resiliency such as ABS resin and other butadiene and styrene polymers and co-polymers, nylons etc. EPDM rubber is particularly advantageous because it has excellent UV, ozone and chemical resistances, and is long-ageing. It is resistant to most paints, lacquers, oils, solvents, acids and cleaning agents.

In a third aspect the present invention provides flashing comprising an elongate body for overlying a member, and legs protruding from either side of the body and extending for at least part of the body length, wherein one, some or all of the legs are detachable from the body along a line of severance.

Advantageously, by providing for leg detachability, various flashing shapes can be created which can allow for accommodation of various other adjacent members in abutting or closely positioned relationships. For example, when all legs are detached, the resultant flashing may simply comprise the elongate body, or when one of the legs is detached and the flashing is applied to a first member, an adjacent second member can be butted right up against the first member where that leg has been removed, etc.

Typically the flashing comprises two legs extending for the entire length of the body on opposing sides thereof, although a plurality of discrete legs arranged along part or the entire length of the body on opposing  
5 sides thereof can also be provided.

In one embodiment, prior to positioning the flashing on the member, leg(s) on opposing sides of the body project generally towards each other. Typically in this regard the flashing is extruded or moulded so that the  
10 legs in the finished configuration project generally towards each other so that the flashing is manufactured with an in-built bias. Thus, when the legs are positioned on either side of the member, they are biased towards that  
15 respective side. This enables the flashing to grip onto the member, making it easier to use and tending to prevent its inadvertent removal. For example, when the flashing is used in an inverted configuration, the legs grip to the member and prevent the flashing from dropping off the member.

20 In addition, by providing legs which extend for the entire length of the body on opposing sides thereof the flashing can prevent stain marks from promulgating down the side of the member to which the flashing is attached (eg. resin stains, water stains etc that emanate from or  
25 occur on timber members, or from seepage from overlying, abutting or adjacent members etc).

Preferably the flashing further comprises wings extending laterally from the body beyond the legs (ie. the wings being provided in addition to the legs). Typically  
30 the wings extend for the entire length of the body on opposing sides thereof, although a plurality of discrete wings can be provided for part of or for the entire length of the body on opposing sides thereof. The wings enable



the flashing to overlap adjacent members, and can also overlap adjacent flashing etc to provide for a more comprehensive barrier against moisture, dust, noise and the like.

5           A line of severance can also provided along and adjacent to where each wing is attached to the body to enable wing detachment. In other words, a discrete or an entire length of the wing can be removed to enable positioning of the member in close proximity to other  
10 members and to enable the abutment of adjacent members etc.

The wings typically have an elongate rectangular shape and are respectively joined to the body along opposing elongate sides thereof. In a further variation,  
15 each wing can taper, from a relatively thicker section where it is connected to the body to a relatively thinner remote end (ie. the wing having a decreasing cross-sectional thickness out to its remote end). This tapering configuration can reduce any distortion between flashing  
20 heights in adjacent members where the wing overlaps adjacent flashing (eg. of an adjacent member). The wings can also be fastened directly or indirectly to an adjacent member (eg. by nailing, screwing, adhesive, etc).

Typically a line of severance is provided along and  
25 adjacent to where each leg attaches to the body to enable leg detachment from the body, in a similar manner to wing detachment. Again, detaching of the leg(s) allows for close positioning or abutment of adjacent members etc.

The body may have an elongate rectangular shape so  
30 that it can be positioned along a corresponding rectangular face of a member (eg. an upper face of a joist). The legs can also have an elongate rectangular shape and be respectively joined to the body along

opposing elongate sides thereof (eg. so that they can run along corresponding rectangular side faces of a member such as a joist). Each leg may also taper, from where it is connected to the body to a remote end, or can have a  
5 constant thickness therethrough.

Typically the flashing of the first and third aspects is also formed from an elastomeric material and, in a usual application of the flashing in accordance with the invention, typically the member is a joist, beam or the  
10 like.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Notwithstanding any other forms which may fall within the scope of the invention, preferred forms of the  
15 invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figures 1A, 1B, 1C show respectively plan, end and underside plan views of an end section of flashing in accordance with the present invention;

20 Figure 2 shows a perspective view of the flashing end section of Figure 1;

Figure 3 shows a side elevation of the flashing end section of Figure 1;

Figure 4 shows an enlarged end elevation similar to  
25 Figure 1B and illustrating in greater detail lines of severance in the flashing;

Figures 5A-5F show end elevations of various flashing configurations in which parts of the flashing have been detached for different applications; and

30 Figures 6-15 show various in-use configurations of the flashing in Figures 1-5.



## MODES FOR CARRYING OUT THE INVENTION

Referring firstly to Figures 1-3, flashing 10 in accordance with the present invention comprises an elongate body portion 12 having a centre line 14 formed (eg. indented or raised) or printed thereon to enable centring of the body portion on a member such as a joist or the like. The centre line 14 also provides a guide for accurate nailing/screwing of overlying members (eg. decking).

10       Projecting laterally from respective longitudinal sides of the body portion 12 are two wing portions 16. Each wing portion is attached to the body portion via a respective raised region 18, which supports flexure of the wing portion with respect to the body portion.

15       It will also been seen that each wing portion tapers in thickness from the raised region out to a free edge thereof. Thus, adjacent to its free edge, each wing portion is relatively thin, and this allows it to overlap adjacent flashing etc (as discussed below). In addition, 20 each wing portion may extend for the entire length of the body portion, or may be provided as a series of discrete wing portions spaced along a respective longitudinal side of the body portion. As a further alternative, discrete wing portions can be cut, torn or severed from a larger 25 length of wing portion in use, again depending on the application.

Extending downwardly from adjacent longitudinal sides of the body portion are two leg portions 20. Each leg portion is connected to the body portion adjacent to a 30 respective raised region 18, and each leg portion subtends an acute angle  $\alpha$  (Figure 1B) with the body portion. Thus, as can be seen in Figure 1B, the leg portions tend to

generally point towards each other, which enables the flashing to grip onto a member as described below.

Each leg portion can also slightly taper in decreasing thickness from the body portion out to a free edge thereof. This provides the leg portion with a greater degree of stiffness adjacent to the body portion and relatively less stiffness away from the body portion. This assists with maintaining an in-built bias in the leg portion orientation to the position as depicted in Figures 1B and 2.

Again, each leg portion can extend for a full length of the body portion, or can be provided as a series of spaced apart discrete leg portions along the length of the body portion. In addition, these discrete leg portions can be formed by severing, tearing or cutting sections of a leg portion from the remainder of the leg portion length.

As better illustrated in Figures 1C and 4, a line of severance 22 is provided where the wing portion 16 connects to raised region 18. This enables each wing portion to be partially or completely severed, cut or torn from the body portion (as shown in Figure 13). Similarly, a line of severance 24 is provided where each leg portion connects to the body portion 12. Again, this allows each leg portion to be partially or completely severed, cut or torn from the body portion (as shown on Figure 14). In addition, the lines of severance 22, 24 need not be at the connection points of the wing/leg portions to the body portion, and instead could be located partway along the wing/leg portions for some applications.

Referring now to Figures 5A to 5F, it will be seen that a number of different wing portion and leg portion detachment scenarios are possible. Each of these allows

the flashing to be used in parallel or in various angular relationships with adjacent flashing on adjacent members and allows for various other positional arrangements of the flashing on a member to which the flashing is mounted.

5 Referring now to Figure 6, flashing 10 in accordance with the present invention is shown positioned on a member in the form of a joist J, an end of which is butted to a wall W (which may also be a beam etc). The joist J also sits on top of a member in the form of bearer B. As can  
10 be seen, part of each of the leg portions 20 is cut or torn away, or removed, to define an end region 26 of the body portion 12. This end region together with the wing portions 16 lap upwardly along the wall W as shown.

This lapping provides a barrier to water, moisture,  
15 liquids, dust etc at the joint of joist J to wall W. The end region can also be sealed against the wall. In addition, the wing portions 16 at the end region overhang laterally either side of the joist to provide a covering effect to the joint.

20 The leg portions 20 are urged outwardly by respective sidewalls of the joist J (as better shown in Figures 7 and 8). Because of the internal bias in the flashing against such outward movement, the leg portions grip onto either side of the joist. This enables placement onto the  
25 flashing of overlying members (eg. batons, decking etc) and fastening of these members to the joist with less likelihood of displacement of the flashing.

Referring specifically to Figure 7, it will be seen how the flashing 10 covers and protects the top face of  
30 the joist J, with the wing portions overhanging the joist on either side to prevent moisture (eg. rain etc), fluid seepage and dust etc falling onto the sides of the joist. In addition, it will be seen how the leg portions 20

(biased outwardly by the respective joist side faces) grip on to the joist to hold the flashing firmly in place. If desired, adhesive can also be applied between the flashing and the joist. When an overlying member (eg. decking, floorboards, panels etc) is positioned on top of the flashing, nails or screws can be driven through the flashing. Where the flashing is formed from elastomeric or deformable material, it tends to grip around the side of the nail or screw, thereby also preventing passage of moisture, dust etc between the flashing and nails/screws and towards the joist. This prevents rotting, warping, etc of the joist and also prevents moisture vaporisation between the joist and flashing which otherwise can lead to bubbling, buckling etc.

Referring now to Figure 8, parallel joists, J and J' are shown. In this embodiment the left-side flashing 10 has one of its wing portions removed (in a manner as shown in Figure 5B) enabling the adjacent right-side flashing 10' to overlap in the region shown by arrow O. As also shown in Figure 8, the leg portions located between the adjacent joists can be compressed together when the flashing is formed from an elastomeric or deformable material. The overlapping of adjacent flashings provides greater sealing against the passage of moisture, dust between the adjacent joists, which has many advantages. In addition, it provides for increased support for overlying members to enhance impact resistance, sound absorption, cushioning etc.

Referring now to Figure 9, an arrangement for abutting perpendicular joists J and J' is depicted. In this arrangement, the joists are connected by a screw or nail plate P. The left-side joist J has a flashing 10 mounted thereto similar to the flashing shape of 5B. The

left-side flashing 10 has one of its wing portions removed to enable the left-side joist to be positioned in close facing relationship (or abutment) to a wall W. The flashing of Figure 5A can also be employed in this regard.

5       The right-side joist J' employs a flashing 10' shaped similarly to that shown in Figure 4. As can be seen, the left-side flashing has a wing portion that overlaps the right-side flashing to provide a moisture etc barrier at the intersection of the two joists. Decking members D can  
10 then be positioned over the two joists and fastened down onto them (eg. by screws or nails) which can extend through the respective flashings. The decking D can also compress against the overlapping wing portion of the left-side flashing. Because of its tapering thickness, the  
15 wing portion can be compressed by decking D so that adjacent decking members can be levelled as depicted.

Figure 10 shows an arrangement of perpendicular joists J and J' similar to Figure 9, but where a section  
28 of the overlapping wing portion 16 has been cut, torn  
20 or detached along the line of severance 22 and also cut from a remainder of the wing portion 16 (eg. where no overlap of the wing portion is required or desired). This arrangement can be employed eg. where moisture etc ingress is not critical, such as in indoor applications.

25       Referring now to Figure 11, an arrangement is depicted where the joist J abuts perpendicularly a plate member PL. Once again, sections of leg portions 20 have been removed adjacent to the plate PL to enable the body portion 12 and lateral wing portions 16 to lap over a top  
30 surface of the plate PL. Decking D can be then be positioned on top of the joist at the intersection of the joist with the plate.



Referring now to Figure 12, the close positioning of a joist J against a wall W whilst resting on a bearer B is depicted. The flashing can employ a shape similar to that shown in Figure 5B. The location of one of the leg portions 20 between the joist and the wall prevents the ingress of moisture, dust etc at region E. The overhanging of wing portions 16 prevents moisture, seepage etc running down the side of joist J, the moisture dropping off the flashing at region G. In addition, the provision of the right-side leg portion enables the joist to be painted, or coated with a sealer, and thereby prevents any overlying members (such as decking, floorboards etc) from being inadvertently coated with the paint, sealer etc. Thus, the bottom tip of the leg provides an edge I to enable paint "cutting-in".

As stated above, Figure 13 shows the removal (eg. by cutting, tearing etc) at the line of severance 22 of one of the wing portions. Figure 14 shows the removal at the lines of severance 24 of two of the leg portions.

Referring now to Figure 15, a flashing 10 similar to that depicted in Figure 5E is shown positioned on a joist J. In this application, both leg portions 20 of the flashing have been removed so that the flashing can be positioned on top of the joist and so that the wing portions 16 overhang either side of the joist. This arrangement can be employed where it is not necessary for the flashing to grip onto the joist (eg. where it is not critical that the flashing be in perfect alignment at a central position on top of the joist). Alternatively, to maintain a central alignment, the flashing can be adhesively fixed to the joist or can be nailed or screwed thereto, prior to then attaching overlying members to the joist.



Whilst in Figures 6-12 and 15 the flashing has been described with reference to its use on joists, it should be appreciated that the flashing can be used with many different types of members including beams, bearers, rafters, battens, purlins, gurts, uprights etc.

Whilst typically the flashing is formed from an elastomeric polymer, in some applications it may be formed from more rigid polymers or other materials. Thus, it can be extruded or moulded and supplied in easy to use rolls.

As stated above, the flashing in accordance with the invention has a number of advantages. These include:

- The capacity of the flashing to cover and protect the upper surfaces of joists, beams and other members (especially timber joists and beams) to prevent rot, splitting, swelling, staining, discolouration, etc from moisture and other liquid passage, dust etc.

- The in-built bias in the flashing which enables the leg portions to grip onto the side of a member, thus enabling the flashing to be used in a number of orientations, including inverted orientations.

- Detachability/severability of the leg portions and wing portions of the flashing, which enable it to be used in a variety of different applications, some of which have been described above with reference to Figures 5-15.

- The capacity of the flashing to grip onto nails, screws etc inserted therethrough, to prevent moisture, dust and the passage of other matter between the flashing and the nail/screw.

- The capacity of the flashing to compress to enable overlapping of adjacent flashings without affecting respective levels of overlying members (such as decking).

- The impact and shock absorption properties of the

flashing, together with noise resistance and minimisation (especially where the flashing is used with metal and other hard members, including metal decking for formwork etc).

5           • The capacity of the flashing to prevent moisture and dust passage into and between the joints between members, and to cover or shroud members by providing an overhang on either side thereof (eg. provided by overhanging wing portions 16).

10           • The capacity of the flashing to be formed into a number of different shapes using the lines of severance and also because it can be easily cut, torn and shaped.

          Whilst the invention has been described with reference to a number of preferred embodiments, it should  
15 be appreciated that the invention can be embodied in many other forms.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. Flashing comprising an elongate body for overlying a member, and legs extending for at least part of the body length and protruding from either side of the body in a manner such that the legs are biased towards and can be positioned at a respective member side.
2. Flashing as claimed in claim 1 comprising two legs extending for the entire length of the body on opposing sides thereof.
3. Flashing as claimed in claim 1 or 2 wherein, prior to positioning the flashing on the member, leg(s) on opposing sides of the body project generally towards each other.
4. Flashing as claimed in any one of the preceding claims further comprising wings extending laterally from the body beyond the legs.
5. Flashing as claimed in claim 4 wherein the wings extend for the entire length of the body on opposing sides thereof.
6. Flashing as claimed in claims 4 or 5 wherein a line of severance is provided along and adjacent to where each wing is attached to the body to enable wing detachment.
7. Flashing as claimed in any one of claims 4-6 wherein the wings have an elongate rectangular shape and are respectively joined to the body along opposing elongate sides thereof.
8. Flashing as claimed in any one of claims 4-7 wherein each wing tapers, from a relatively thicker section where it is connected to the body to a relatively thinner remote end.
9. Flashing as claimed in any one of the preceding claims wherein a line of severance is provided along and

adjacent to where each leg attaches to the body to enable leg detachment from the body.

10. Flashing as claimed in any one of the preceding claims wherein the body has an elongate rectangular shape.

5 11. Flashing as claimed in any one of the preceding claims wherein the legs have an elongate rectangular shape and are joined to the body along opposing elongate sides thereof.

10 12. Flashing as claimed in any one of the preceding claims wherein each leg tapers, from where it is connected to the body to a remote end, or has a constant thickness therethrough.

13. Flashing as claimed in any one of the preceding claims that is formed from an elastomeric material.

15 14. Flashing as claimed in any one of the preceding claims wherein the member is a joist, beam or the like.

15. Flashing comprising an elongate body for overlying a member, and legs protruding from either side of the body and extending for at least part of the body length,  
20 wherein one, some or all of the legs are detachable from the body along a line of severance.

16. Flashing as claimed in claim 15 wherein the line of severance is provided along and adjacent to where each leg is attached to the body.

25 17. Flashing as claimed in claim 15 or 16 which is otherwise as defined in any one of claims 1-8 or 10-14.

18. Elastomeric flashing comprising an elongate body for overlying a member.

19. Flashing as claimed in claim 18 which is otherwise as  
30 defined in any one of claims 1-12 or 14.

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Dated this 5th day of December 2003

Peter Quirk

By his Patent Attorney

GRIFFITH HACK

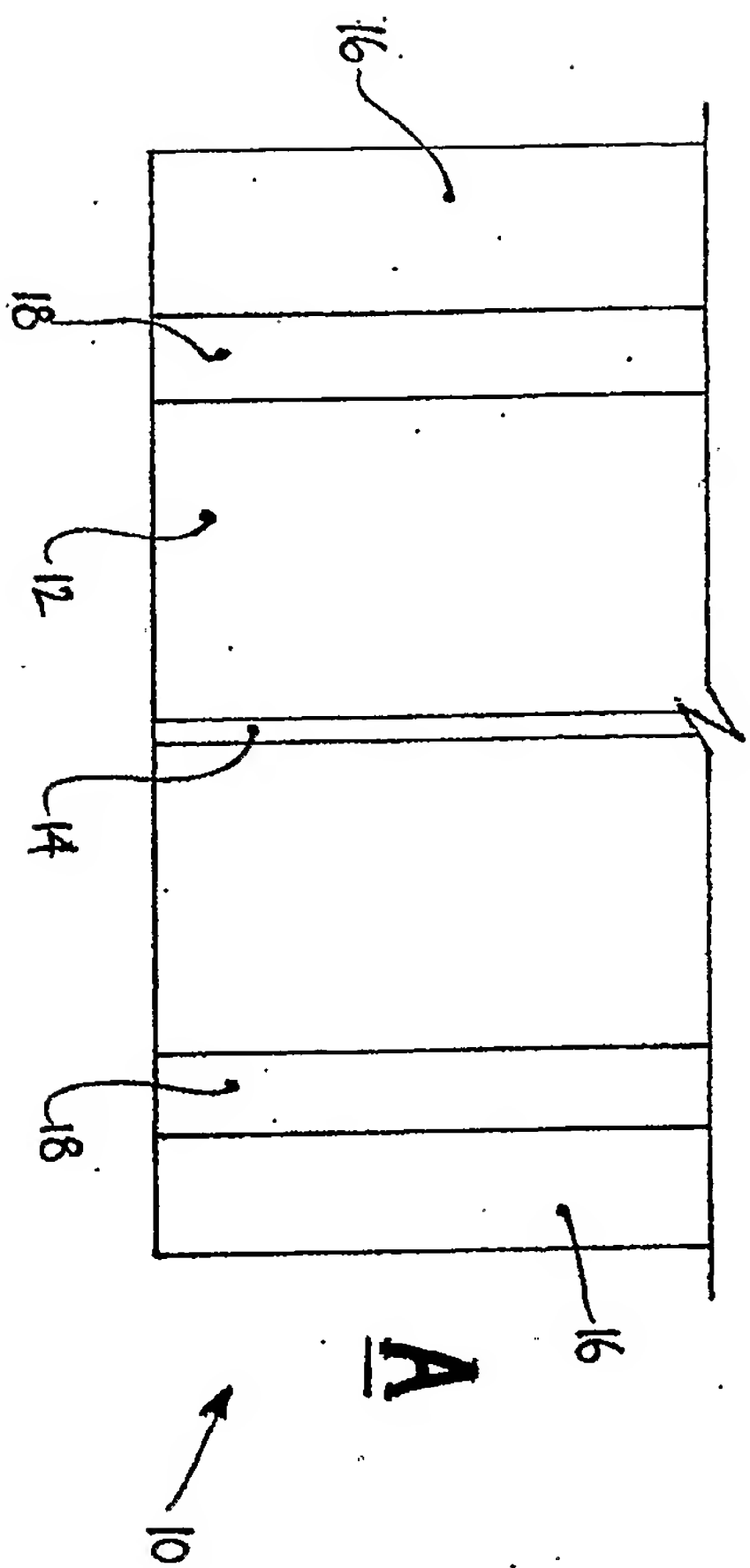


FIG. 1

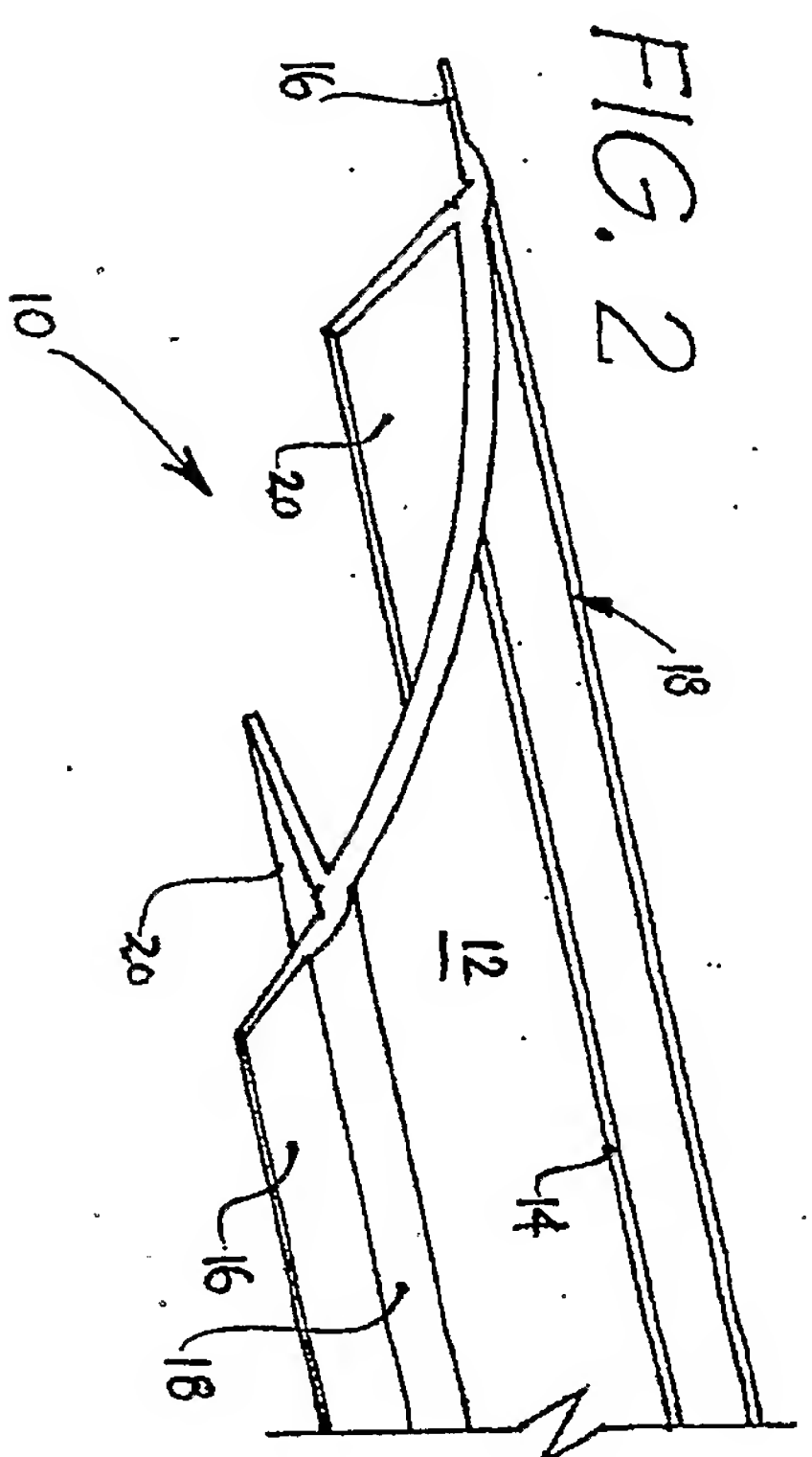
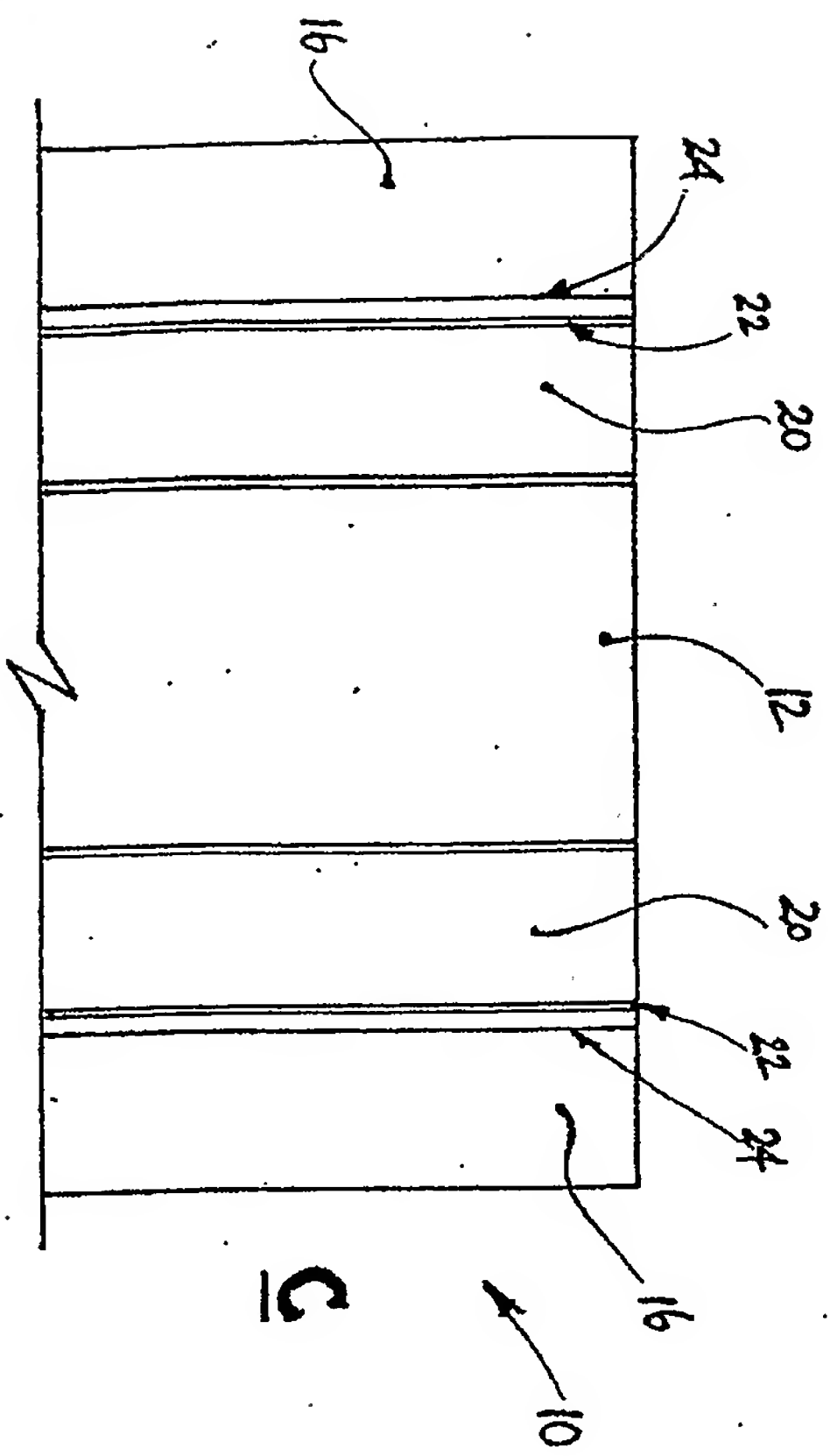
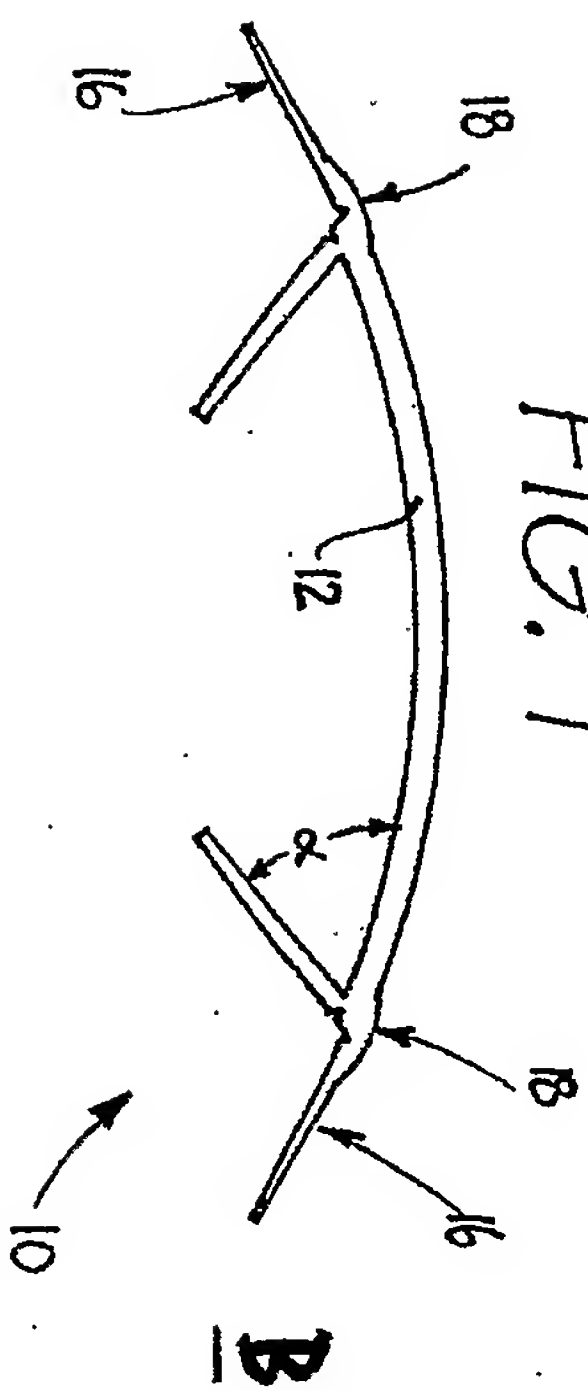


FIG. 2

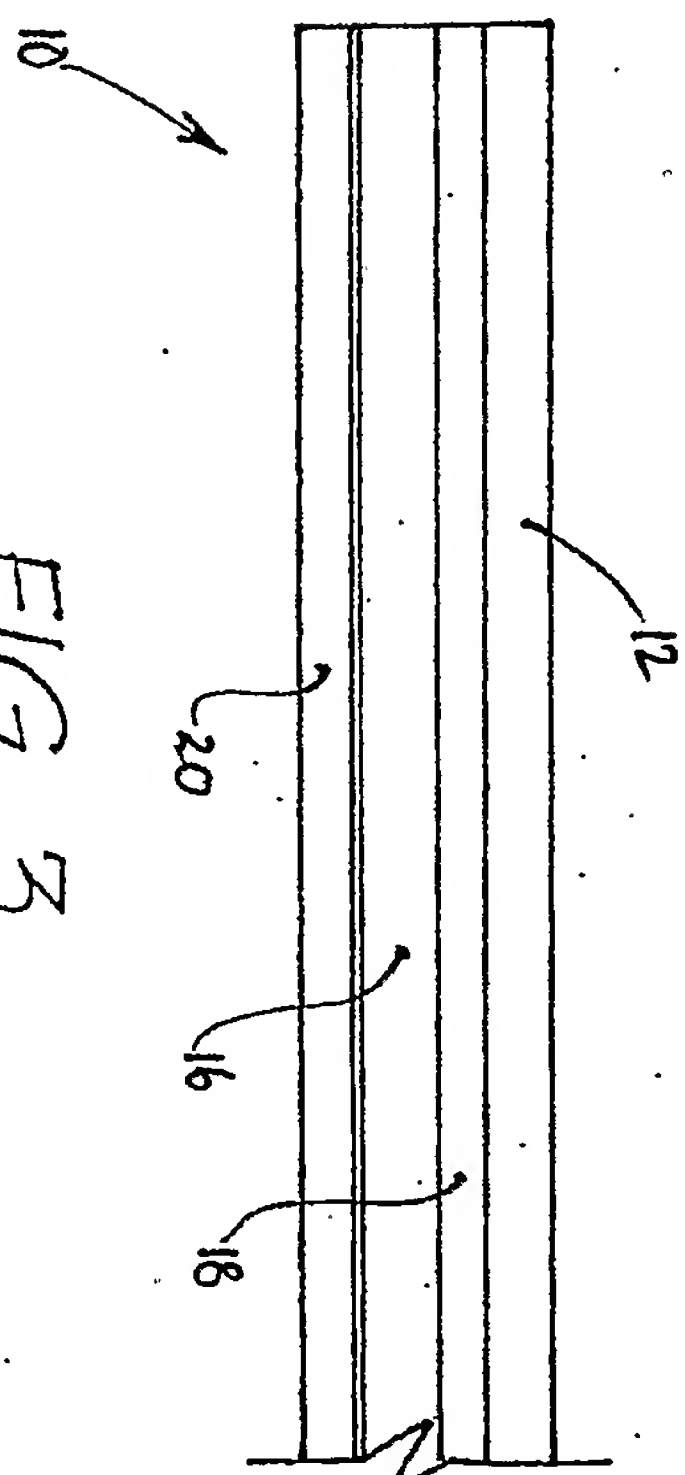


FIG. 3



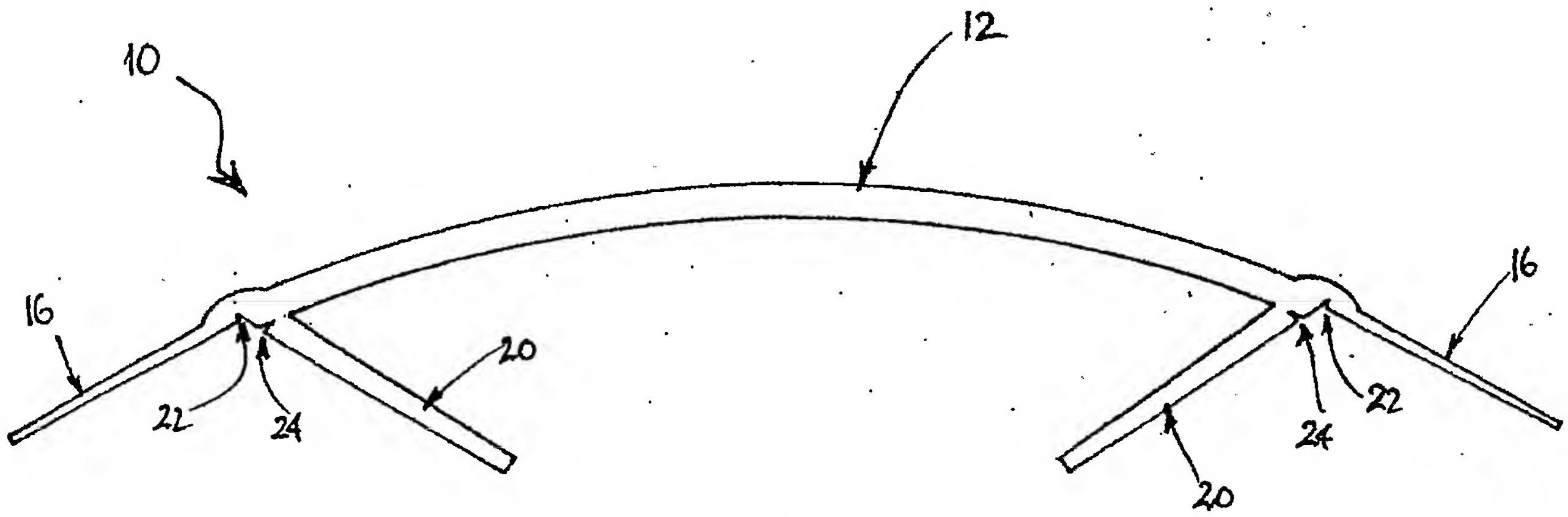


FIG. 4

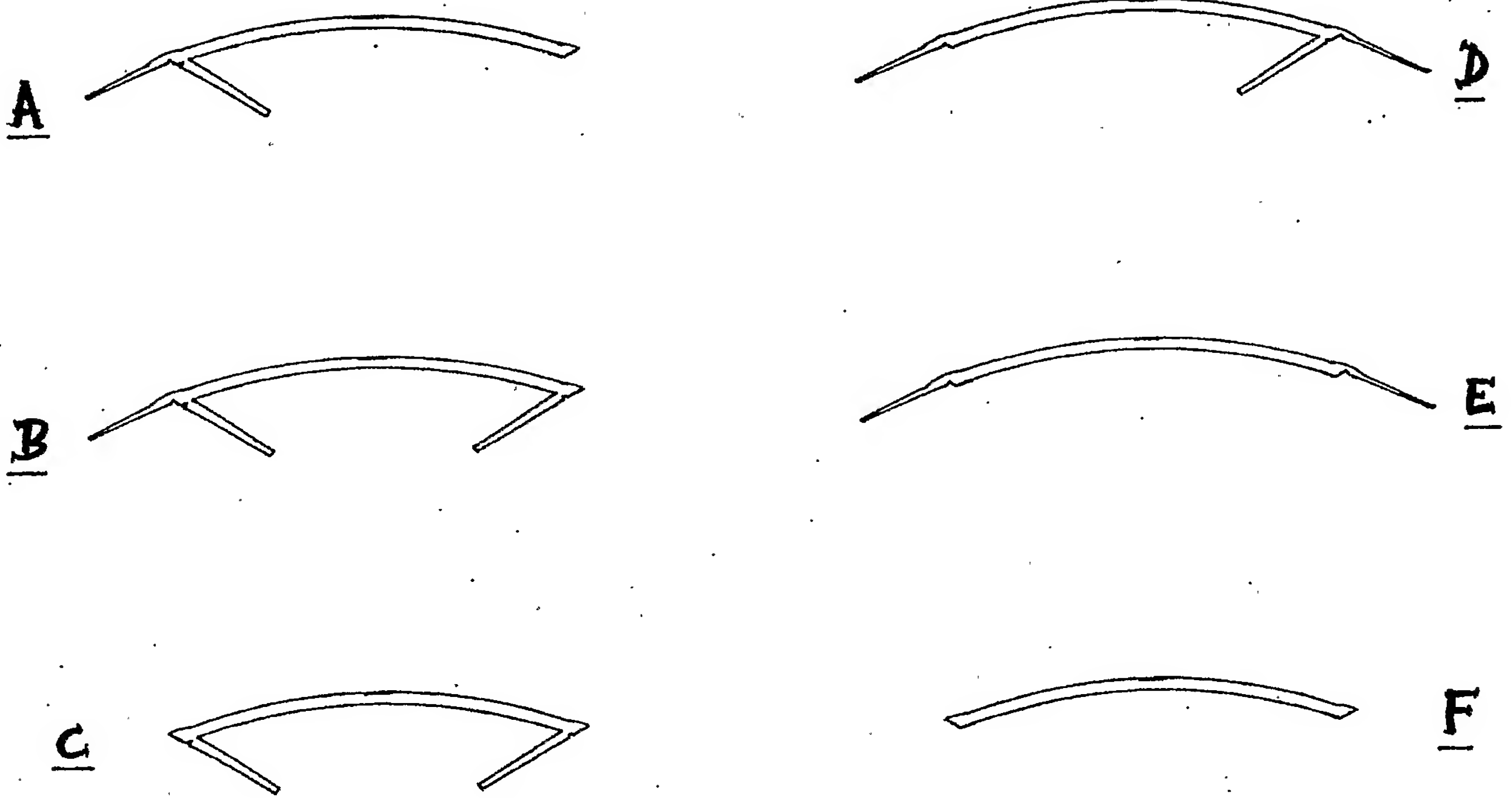


FIG. 5

